

**Wave number of dynamo-waves and modes  
of the global magnetic field of the sun  
(excited by  $\alpha\Omega$ -process in the convection zone)**

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In the mixture-length approach the values of number  $K\lambda$  ( $K$  is the wave number of dynamo-wave,  $\lambda$  is the characteristic scale of the dynamo region) near the bottom of the solar convection zone are calculated. In the turbulent dynamo model this number determines the character of the modes of the global magnetic field excited by mechanism which is based on the joint action of mean helical turbulence and differential rotation of the Sun. Using the our estimate of the helicity parameter and the values of the radial gradient of angular velocity obtained from the newer helioseismic measurements it is find out that on the certain phase of the solar cycle at low latitudes this mechanism produces rather the main antisymmetric (odd) mode of poloidal field, the dipole (  $K\lambda \simeq -6, 7$  ), while at the latitudes higher  $40^\circ$  the conditions are more favourable for exciting of the lowest symmetric (even) mode of field, the quadrupole ( $K\lambda \simeq +7, 2$ ).